

What is claimed is:

1. A pharmaceutical dosage form having a first and second active drug, said dosage form comprising:
  - (a) a controlled release core comprising an antihyperglycemic drug and at least one pharmaceutically acceptable excipient.
  - (b) a seal coat applied to the controlled release core; and
  - (c) an immediate release thiazolidinedione derivative containing coating applied to the seal coating.
2. The dosage form of claim 1 wherein said controlled release core is an osmotic tablet.
3. The dosage form of claim 2 wherein the osmotic tablet comprises:
  - (a) a core comprising:
    - (i) 50-98% of said antihyperglycemic drug;
    - (ii) 0.1-40% of a binding agent;
    - (iii) 0-20% of an absorption enhancer; and
    - (iv) 0-5% of a lubricant;
  - (b) optionally a seal coat surrounding the core; and
  - (c) a semipermeable membrane comprising:
    - (i) 50-99% of a polymer;
    - (ii) 0-40% of a flux enhancer and
    - (iii) 0-25% of a plasticizer, said membrane having at least one passageway formed therein for release of the antihyperglycemic drug.
4. The dosage form of claim 1 wherein said antihyperglycemic drug is a biguanide.
5. The dosage form of claim 4 wherein said biguanide is selected from the group consisting of metformin, phenformin, buformin or pharmaceutically acceptable salts, isomers or derivatives thereof.
6. The dosage form of claim 1 wherein said thiazolidinedione derivative is troglitazone, rosiglitazone, pioglitazone, ciglitazone or pharmaceutically acceptable salts, isomers or derivatives thereof.
7. The dosage form of claim 1 wherein said core is substantially free from any gelling or expanding polymer.

8. The dosage form of claim 1 wherein said controlled release of said antihyperglycemic drug provides a Tmax of 8-12 hours.
9. The dosage form of claim 1 wherein said release of the thiazolidinedione derivative provides a Tmax of 1-12 hours.
- 5 10. The dosage form of claim 9 wherein said release of the thiazolidinedione derivative provides a Tmax of 1-4 hours.
11. A pharmaceutical dosage form having a first and second active drug, said dosage form comprising:
- 10 (a) a controlled release core comprising an antihyperglycemic drug and at least one pharmaceutically acceptable excipient; and
- (b) an immediate release thiazolidinedione derivative containing coating applied to the controlled release core comprising:
- (i) a thiazolidinedione derivative; and
- (ii) a binder;
- 15 wherein the immediate release coating is applied to the controlled release core using a solvent mixture comprising water and an organic solvent.
12. The dosage form of claim 11 wherein said controlled release core is an osmotic tablet.
13. The dosage form of claim 12 wherein the osmotic tablet comprises:
- 20 (a) a core comprising:
- (i) 50-98% of said antihyperglycemic drug;
- (ii) 0.1-40% of a binding agent;
- (iii) 0-20% of an absorption enhancer; and
- (iv) 0-5% of a lubricant;
- 25 (b) optionally a seal coat surrounding the core; and
- (c) a semipermeable membrane comprising:
- (i) 50-99% of a polymer;
- (ii) 0-40% of a flux enhancer; and
- (iii) 0-25% of a plasticizer, said membrane having at least one
- 30 passageway formed therein for release of the antihyperglycemic drug.
14. The dosage form of claim 11 wherein said antihyperglycemic drug is a biguanide.

15. The dosage form of claim 14 wherein said biguanide is selected from the group consisting of metformin, phenformin, buformin or pharmaceutically acceptable salts, isomers or derivatives thereof.
16. The dosage form of claim 11 wherein said thiazolidinedione derivative is troglitazone, rosiglitazone, pioglitazone, ciglitazone or pharmaceutically acceptable salts, isomers or derivatives thereof.
17. The dosage form of claim 11 wherein said core is substantially free from any gelling or expanding polymer.
18. The dosage form of claim 11 wherein said controlled release of said antihyperglycemic drug provides a Tmax of 8-12 hours.
19. The dosage form of claim 11 wherein said release of the thiazolidinedione derivative provides a Tmax of 1-12 hours.
20. The dosage form of claim 19 wherein said release of the thiazolidinedione derivative provides a Tmax of 1-4 hours.
21. A pharmaceutical dosage form having a first and second active drug, said dosage form comprising:
- (a) a controlled release core comprising an antihyperglycemic drug and at least one pharmaceutically acceptable excipient; and
  - (c) an immediate release thiazolidinedione derivative containing coating applied to the controlled release core comprising:
    - (i) a thiazolidinedione derivative;
    - (ii) a binder;
    - (iii) a surfactant; and
    - (iv) a pore former;
- wherein the immediate release coating is applied to the controlled release core using water, an organic solvent or a solvent mixture comprising water and an organic solvent.
22. The dosage form of claim 21 wherein said controlled release core is an osmotic tablet.
23. The dosage form of claim 22 wherein the osmotic tablet comprises:
- (a) a core comprising:
    - (i) 50-98% of said antihyperglycemic drug;
    - (ii) 0.1-40% of a binding agent;
    - (iii) 0-20% of an absorption enhancer; and

- (iv) 0-5% of a lubricant;
  - (b) optionally a seal coat surrounding the core; and
  - (c) a semipermeable membrane comprising:
    - (i) 50-99% of a polymer;
    - (ii) 0-40% of a flux enhancer; and
    - (iii) 0-25% of a plasticizer, said membrane having at least one passageway formed therein for release of the antihyperglycemic drug.
24. The dosage form of claim 21 wherein said antihyperglycemic drug is a biguanide.
25. The dosage form of claim 24 wherein said biguanide is selected from the group consisting of metformin, phenformin, buformin or pharmaceutically acceptable salts, isomers or derivatives thereof.
26. The dosage form of claim 21 wherein said thiazolidinedione derivative is troglitazone, rosiglitazone, pioglitazone, ciglitazone or pharmaceutically acceptable salts, isomers or derivatives thereof.
27. The dosage form of claim 21 wherein said core is substantially free from any gelling or expanding polymer.
28. The dosage form of claim 21 wherein said controlled release of said antihyperglycemic drug provides a Tmax of 8-12 hours.
29. The dosage form of claim 21 wherein said release of the thiazolidinedione derivative provides a Tmax of 1-12 hours.
30. The dosage form of claim 29 wherein said release of the thiazolidinedione derivative provides a Tmax of 1-4 hours.
31. A pharmaceutical dosage form having a first and second active drug, said dosage form consisting essentially of:
- (a) an osmotic tablet core wherein a osmotic tablet consists essentially of:
    - (i) a core comprising:
      - (I) 50-98% of metformin or a pharmaceutically acceptable salt;
      - (II) 0.1-40% of a binding agent; and
      - (III) 0-20% of an absorption enhancer;
    - (ii) optionally a seal coat surrounding the core; and
    - (iii) a semipermeable membrane comprising:
      - (I) 50-99% of a polymer;
      - (II) 0-40% of a flux enhancer and

(III) 0-25% of a plasticizer, said membrane having at least one passageway formed therein for release of the metformin;

(b) optionally a seal coat applied to the osmotic tablet core

(c) an immediate release thiazolidinedione derivative containing coating consisting essentially of :

(i) a thiazolidinedione derivative selected from the group consisting of troglitazone, rosiglitazone, pioglitazone, ciglitazone or pharmaceutically acceptable salts, isomers or derivatives thereof;

(ii) a binder; and

(iii) a surfactant wherein the immediate release coating is applied to the core or sub coated core using a solvent mixture comprising water and an organic solvent and wherein the dosage form provides a Tmax of 8-12 hours for the metformin and a Tmax of 1-4 hours for the thiazolidinedione derivative.